

Support For Amendment:

Independent claims 29 and 44 have been amended to further characterize the contoured nature of the upper working surface of the mortarboard. In particular, claim 29 has been amended to recite that the radius of the contour is equal in all directions from a central position on the working surface and toward each of the sides of the working surface. Claim 44 has been amended to recite that the contoured upper working surface extends in a single continuous arc from each of the sides of the upper working surface to form a single continuous arcuate contour across the working surface. Independent claims 29 and 44 have further been amended to describe how the claimed contoured working surface of the mortarboard solves a previous problem of trowel mixing of mortar on working surfaces of flat mortarboards. This claimed continuous contoured working surface structure is clearly shown by the contour lines in Figure 1. The continuously contoured or dished-out characterization of the upper working surface is described by the specification at, for example, page 7, line 13 through page 8, line 21.

Claims 61-64 were cancelled in a previous Amendment in response to a restriction requirement. Applicant continues to reserve the right to pursue cancelled claims 61-64 in a divisional patent application.

No new matter is introduced by this amendment, and entry thereof is requested. Upon entry, claims 29-38 and 40-60 are active in this application.

REMARKS

This Amendment and Response is in reply to the Official Action mailed August 6, 2007 and is being filed with a Request for Continued Examination.

The outstanding Office Action includes rejections of claims 29-35, 37, 38, 40-50, 52-57, 59 and 60 under 35 U.S.C. § 103(a) over U.S. Patent No. 1,448,558 to Maggi and U.S. Patent No. D113,023 to Tabb. Claims 36 and 51 were rejected under 35 U.S.C. § 103(a) over Maggi and Tabb, further in view of U.S. Patent No. 5,558,253 to Malvasio. Claim 58 was further rejected under 35 U.S.C. § 103(a) over the combination of Maggi and Tabb, further in view of U.S. Patent Application Publication 2004/0150236 A1 of Hobel et al. All of these rejections are traversed.

The invention relates to a mortarboard configured for operative use by masons and brick layers at a construction site. The mortarboard, according to independent claims 29 and 44, includes a generally rectangular sheet having an outermost thickness of at least about 0.5 inches and defining a broad continuous upper working surface. This upper working surface is just what it implies. It is a surface that holds one or two shovel fulls of wet cementitious mortar that needs to be mixed and continuously tended to (i.e. "worked") before application by the mason to the bricks/blocks that it will bond together. The upper working surface is slightly contoured in continuous dished-out manner from each of the sides of the upper working surface across the extent of the upper working surface. Therefore, the working surface is generally flat, except for a slight continuous contour. The depth of the contour is slight and the arcuate shape thereof is very gradual and smooth to facilitate unimpeded movement of the mason's trowel over the surface when working mortar thereon or when removing mortar in a continuous sweeping trowel motion from the working surface. This feature of Applicant's invention is not found in any known prior art. Independent claims 29 and 44 have been further amended to define the nature of the continuous dished-out arcuate contour shape. Claim 29 now recites: "The radius of said contour being equal in all directions from a central position on the working surface and toward each of said sides." Claim 44 includes the recitation: "Said sheet material being slightly contoured across said upper working surface in dished-out manner in a single continuous arc

extending from each of the sides of the upper working surface to form a single continuous arcuate contour across the working surface."

The upper working surface is further characterized as being sized and configured to retainably hold an operative quantity of cementitious mortar to be worked by an operator such as by mixing with a trowel or shovel and being impervious to retain moisture in the mortar. Independent claims 29 and 44 have further been amended to include recitations of the advantage in mixing performance resulting from the inventive dished-out contour shape of the upper working surface. Claims 29 and 44 now recite: "Wherein mixing of mortar on said working surface by scraping a trowel over said contoured surface is facilitated." Claim 29 further includes a recitation of the sheet material itself defining a cut-out handle portion formed entirely through the sheet material adjacent one edge of the material which is sized to accept a fork-lift tine to facilitate carrying of the mortarboard when not in operative use, such as during transport or the like at a construction site. The handle does not perform any function while the mortarboard is in operative use, but is a significant advantage over prior known mortarboards in enabling ease of movement and transport of the mortarboard during cleaning and movement thereof along scaffolding along a wall as bricks/blocks are being laid, and about the construction site. The handle is claimed as having a size not only suitable for accepting an adult person's hand, but also a tine of a fork-lift to facilitate automated movement and lifting of the mortarboard at a construction site.

The primary reference now cited by the Examiner in all of the obviousness rejections is the waiter's tray patent (1,448,558) to Maggi. Maggi discloses a tray for the bussing of dishes at a restaurant for use by waiter's or bus boys. The tray is relatively thin and light weight to facilitate carrying by the waiter. The cross-sectional shape of the upper surface of the tray in "one" transverse direction (illustrated in Fig. 2) is gradually contoured along its opposed two edges to allow sliding of dishes from a flat bottom portion (1) of the tray to a tabletop (8). In the opposite lateral direction as illustrated in Fig. 3 of Maggi, the tray surfaces adjacent the lateral side edges curve "abruptly" (shown by the reference numeral 4) to the top of the tray. The central portion (1) of the upper tray surface, referred to as the "medial portion 1" by Maggi, is "substantially flat" as clearly shown in both Figs 2 and 3 of the patent. The flat lower surface undoubtedly provides stability to stacked dishes when being carried thereby, as well as providing

a stable lower surface of the tray to facilitate carrying thereof by the waiter or bus boy, as is well-known in the restaurant art.

The Examiner has mischaracterized the disclosures and teachings of Maggi. The Examiner states that Maggi discloses a "continuous, smooth, upper working surface (1) wherein an upper working surface is slightly contoured in a continuous dished-out manner from each of the sides of the upper working surface across substantially the extent of said upper working surface (see col. 2, lines 81-96; col. 3, lines 1-15. . .". The description recited by the Examiner is Applicant's claim language and not that of the patent. Maggi does not disclose a contour that extends from each of the sides of the upper working surface across substantially the extent of said upper working surface. Maggi discloses a waiter's tray that has a substantially flat portion of its upper working surface, with only two of its four edges including a contoured region that facilitates sliding of dishes from the substantially flat (1) portion of the tray to a tabletop. Referring to Fig. 2 of Maggi, a very substantial central portion (1) of the upper surface of the tray is flat in the transverse direction. Looking at Fig. 3 of Maggi, in the lateral direction, substantially the entire upper surface is flat, with only the very ends thereof being curved "abruptly" (col. 2, lines 103-106) up toward the two lateral edges. The Maggi structure is markedly different from that recited by Applicant's claim 29 which requires a "slight" contour from "each" of the sides of the upper working surface and "across substantially the extent of said upper working surface,". There is no such single continuous arcuate contour in Maggi "across substantially the extent of the upper working surface" even in his best portrayal of the transverse direction of Fig. 2. Fig. 3 does not even come close to defining any "slight" contour in the lateral direction of the tray, and even Maggi refers to such contour along the lateral edges as being "abrupt". Furthermore, claim 29 now includes a further description of the contour as having a radius that is "equal in all directions from a central position on the working surface and toward each of said sides". Clearly no such centrally dished-out configuration is shown or disclosed by Maggi. Similarly, independent claim 44 recites that the contoured upper working surface of the mortarboard is contoured in a "dished-out manner in a single continuous arc extending from each of the sides of the upper working surface to form a continuous arcuate contour across the working surface". Clearly there is no such comparable structure shown or described by Maggi. The tray of the design patent (D113,023) of Tabb contains no contours at all in its upper surface, and is simply a flat surfaced tray. Accordingly, neither Maggi nor Tabb disclose or suggest the

contoured upper surface recited by claims 289 and 44. It is respectfully submitted that the Examiner has failed to prove a prima facie case of obviousness of independent claims 29 and 44 and that rejections thereof should be withdrawn.

Applicant's invention solves a long felt unsatisfied need in the industry and construction trade for an improved mortarboard that facilitates mixing and retention of moisture within the mortar as the mortar sits next to the wall to which it will be applied. The masonry industry is not a new industry and goes back centuries, before the Roman Empire. However, the general techniques and tools used by masons for laying bricks or blocks over that period of time has not substantially changed. They all have used some type of trowel for mixing and applying the mortar to the bricks or structure during the brick laying process. Masons have always been faced with the requirement for continuously operatively mixing and working the mortar to ensure its proper constituency and texture just prior to application thereof to the bricks/blocks that will be bound by the mortar. In all the time that masons have been practicing their trade, the standard mortarboard has been some type of flat piece of material sized to hold a charge of mortar, with all of those inherent deficiencies as described on pages 2 and 3 of Applicant's specification. There has been virtually no innovation in the design or construction of mortarboards over all of these years, as evidenced by the dirth of relevant prior art found by the Examiner. It has been only the Applicant's known teachings and disclosures related to his invention that have, in hind sight, lead the Examiner to search for similar configurations in totally unrelated and non-analogous art in the house wares, cookware, food supply, restaurant supply, etc. industries. There has been no teachings or motivation in any of the art found by the Examiner to date to configure a mortarboard for the construction industry in a way disclosed only by the Applicant. It is well established law that the motivation cannot come from the claimed invention itself through hindsight arguments.

Further, along the same lines, in assessing Applicant's invention, one must be cognizant of who would be an appropriate person "skilled in the art to which this invention applies". Applicant submits that such person would be one who works in the bricklayer/masonry industry or as a tool supplier for masons and brick layers in the construction industry. Applicant submits that persons in the construction industry would recognize one skilled in the art of designing construction tools for mason and brick layers as generally not being the same person as one that

does not work in the same industry or channel of trade such as a person who designs cookware, or kitchen utensils or restaurant supplies for the house wares, food supply, restaurant supply, baking or food and beverage industries. Applicant suggests that a person truly skilled in the art to which his invention applies would neither be motivated to or even consider looking to such non-analogous art for assistance in solving the age old problems of efficiently and reliably handling and working cementitious mortar at a construction site. Conversely, there would be no motivation or incentive for those skilled in the arts of designing cookware, house wares or restaurant supplies relating to the food and beverage industries to apply design principles to their products, for configuring them to withstand the rugged environmental conditions of the construction industry or the mixing and working of abrasive and caustic cementitious mortar products - there simply would be no point to so doing.

Further, it is well established that non-analogous art areas cannot be properly combined for an obviousness rejection where the problems addressed by each are different from one another. In re Deminski, 230 U.S.P.Q. 313, 315 (Fed. Cir. 1986). A field of art is analogous only if one seeking the solution to a problem in one art area would be likely to seek the solution by referring to the other art area. Shatterproof Glass Corp. v. Libbey-Owens Ford Co. 225 U.S.P.Q. 634 (Fed. Cir. 1985). Applicant submits that the primary art being cited by the Examiner over the last several office actions is truly non-analogous art, with no motivation or suggestion therein to apply the teachings thereof to the bricklayer/mason trades or construction industry, and has therefore been inappropriate art for supporting obviousness rejections of Applicant's invention. It has been only the teachings and disclosures by the Applicant himself that has provided any motivation to the Examiner to look elsewhere for structures and configurations in non-analogous art upon which to base obviousness rejections.

Applicant's invention has also achieved some measure of commercial success since its introduction to the construction industry. As stated above, mortarboard innovation in the construction industry has been virtually dormant for thousands of years. However, since Applicant's introduction of his mortarboard to the market, there have been others who have been quick to copy and provide knock-offs to the industry in an attempt to capitalize on Applicant's innovation.

Referring back to the Examiner's rejections of Applicant's claims, the Examiner on several occasions has deminimized the significance of any recitations in the claims directed toward size, thickness, type of material and the like when claimed by the Applicant as specific features of his invention. Applicant submits that such parameters when claimed, cannot be summarily dismissed, since they do, in fact, have significance to the product with which they are being claimed. For example, the thickness of the mortarboard has significance in providing the required strength for a mortarboard of a certain size, while maintaining the structural, performance and reliability features of the product. Similarly, the type of material from which the mortarboard is constructed can be significant in offering reliable resistance to the caustic and abrasive mortar with which the board is used, while providing a lighter weight product than was heretofor known in the industry. Similarly, the size of the handle being configured large enough to accept the tines of a fork-lift is significant as applied to Applicant's invention since it provides a significant advantage to the use of Applicant's mortarboard for transport thereof around a construction site.

In view of the above, it will be noted that independent claims 29 and 44 include a recitation of the outer thickness of the board as being "at least about 0.5 inches". There is no comparable thickness in the Maggi waiter's tray. As shown in cross-sectional views of Figs. 2 and 3, the material thickness of the waiter's tray is fairly thin, with no disclosure whatsoever in the specification of Maggi as to a thickness that would rise to the level of at least 0.5 inches or as to why one would want a waiter's tray of such thickness. As a matter of fact, if one were to construct a waiter's tray of such thickness, it would be virtually impossible to handle by a waiter or bus boy because of its weight - the use for which the tray of Maggi is intended.

For the above reasons, Applicant submits that the Maggi reference does not disclose the upper contoured surface configuration recited in independent claims 29 and 44. Further, none of the other references cited by the Examiner provide any teachings or disclosures for modifying the upper surface contour of Maggi to provide a structure as recited by claims 29 and 44. The Examiner states that the exact contour shape would be an obvious matter of design choice. Applicant disagrees. Such contour shape can be the very essence of invention, as it was in the Maggi reference. Further, there is no disclosure or teaching whatsoever in Maggi as to how or why one would configure the tray construction of Maggi for use in mixing or holding concrete.

The Maggi tray is simply one for facilitating the removal therefrom of a stack of dishes by tipping the tray and sliding the dishes therefrom. This is a totally different issue and problem than addressed by Applicant's mortarboard. In operative use, Applicant's mortarboard is not tipped for any purpose, including for removal of any mortar or cementitious material therefrom. In marked contrast, Applicant's mortarboard is designed to retainably hold the mortar on its upper surface, which mortar is only removed there from by a mason with a trowel. Accordingly, the problems and solutions therefore presented by the waiter's tray of Maggi and the mortarboard of Applicant are entirely different and unrelated. As previously stated, a field of art is analogous only if one seeking the solution to a problem in one art area would be likely to seek the solution by referring to the other art area. That certainly is not the case in the totally unrelated art areas of Maggi and the mortarboard construction of Applicant's invention. For all of the above reasons, Applicant submits that his invention is patentable over Maggi, taken alone or in combination with any of the other art of record.

For the same reasons as discussed above with respect to claims 29 and 44, all of the remaining claims 28-38, 40-43 and 45-60, which respectively depend from independent claims 29 and 44 and necessarily include the limitations thereof are also believed to be in proper form for allowance. Reconsideration and allowance of all claims remaining in the case are respectfully requested.

Applicant would like to address several other issues which have recurrently appeared in the Examiner's Official Actions. The Examiner has maintained her use of the Malvasio (5,558,253) taco plate reference as a proper reference for rejecting those claims of Applicant's invention relating to reinforcing ribs on the lower surface of the mortarboard. Applicant submits that the Malvasio reference is a very poor reference in this regard, since any indentations and/or raised portions on the lower surface of the Malvasio plate are not ribs in the same sense as recited with respect to Applicant's mortarboard claims. The undulations in the lower surface of the Malvasio taco plate are simply the opposite surfaces of reciprocal undulations in the upper surface of the Malvasio taco plate. They are not defining support ribs for any upper surface of the taco plate, but are merely the planar flat, ribless opposite sides of the corresponding upper surface portions of the taco plate. Further, there are absolutely no teachings whatsoever in Malvasio as to how one would apply any reinforcing rib structures on the bottom surface of the

taco plate which would provide structural support to a broad planer surface thereof. The only portion of the Malvasio plate which appears to be flat in any respects would be the semi-circular section 14 of the plate. However, the lower surface thereof is entirely flat and void of any rib structure.

The Examiner has also continued to refer to the Hobel et al. publication with reference to Figures 4a, 4b and 5 thereof as somehow referring to a "support stand" for the palette of Hobel. Once again, the Examiner has misread and misconstrued the disclosures of Hobel. Figures 4a, 4b and 5 thereof have nothing whatsoever to do with stands for supporting the Hobel palette when in operative use. These Figures referred to by the Examiner relate to storage devices for retainably holding the Hobel hawk when "not" being used. Figures 4a and 4b illustrate a wall mount for securing the palette with its mixing surface vertical and parallel to a wall when not in use (paragraph 0045). Similarly, Figure 5 discloses a storage container for tear-off blocks 13 of the hawk. It is basically a box for holding stacks of the tear-off blocks and has nothing whatsoever to do with the functional operational support of the hawk as it is used. Accordingly, all of the disclosures and teachings of Figures 4a, 4b and 5 of Hobel teach against the use of the illustrated structures for any operative support of the hawk during use, as suggested by the Examiner.


Applicant submits that he has made a contribution to the age-old art of mortarboard construction that has satisfied a long-felt need in the industry and which provides significant advantages over mortarboard constructions that have been known in the prior art. Applicant submits that he has made a significant contribution to the art which should be recognized by the allowance of claims commensurate in scope with his invention. It is believed that all of the claims now remaining in the application accurately reflect his inventive contribution and are in proper form for allowance. Applicant respectfully requests reconsideration and allowance of all claims remaining in the application.

If the Examiner should disagree with the Applicant in this regard, she is respectfully requested to give Applicant's undersigned attorney the courtesy of a telephone call to discuss this matter before issuance of another final action on any new art she may cite, and on which the Applicant has not had a chance to be heard.

Respectfully submitted,

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